

IN THE CLAIMS

Please enter the following amendments to the claims. The amendments are supported throughout the specification, including page 15, lines 1-10; Figures 3A-3B; dependent claims 5, 9, 13, and 20; and the Abstract.

1. (currently amended) An MPEG video encoder, said encoder comprising:
 - a) means for analyzing statistics from a video stream;
 - b) ~~means connected to said means~~ for analyzing statistics, for determining if a scene change has occurred; and
 - c) means for creating to create a modified video stream, wherein a frame with low complexity is selected as an I frame in the modified video stream if the scene change is a fade. ~~if a scene change has occurred.~~
2. (original) The encoder of claim 1 wherein said means for analyzing statistics further comprises means for calculating the global complexity of a current frame within said video stream.
3. (currently amended) The encoder of claim 2, wherein the means for creating to create a modified video stream codes said current frame as an I frame and codes the frame previous to said current frame as a P frame in said modified video stream, if a scene change has occurred and if said scene change is a scene cut.
4. (original) The encoder of claim 2, wherein the means to create a modified video stream codes said current frame as a B frame in said modified video stream if a scene change has occurred and said scene change is a dissolve.
5. (original) The encoder of claim 2, wherein the means to create a modified video stream codes a frame with the lowest complexity in a fade as a I frame in said modified video stream if a scene change has occurred and said scene change is a fade.

6. (currently amended) A method for creating a modified video stream, the method comprising said method analyzing the frames of an input video stream to determine if a scene cut, dissolve or fade has occurred;

analyzing a video stream comprising a plurality of I, B, and P frames;

determining when a scene change has occurred;

creating a modified video stream, wherein a frame with low complexity is selected as an I frame in the modified video stream if the scene change is a fade.

7. (original) The method of claim 6 wherein if a scene cut has occurred, at a current frame, coding said current frame as an I frame and coding the frame previous to said current frame as P frame in said modified video stream.

8. (original) The method of claim 6 wherein if a dissolve has occurred, at a current frame, coding said current frame as a B frame in said modified video stream.

9. (currently amended) The method of claim 6 wherein if a fade has occurred, selecting a frame with the lowest complexity in the fade as an I frame in said modified video stream.

10. (currently amended) A computer readable medium including containing instructions for creating a modified video stream, said instructions comprising:

computer code for analyzing the frames of an input video stream to determine when a scene change has occurred;

computer code for creating a modified video stream, wherein a frame with low complexity is selected as an I frame in the modified video stream if the scene change is a fade.

11. (original) The medium of claim 10 wherein if a scene cut has occurred at a current frame, coding said current frame as an I frame and the frame previous to said current frame as a P frame, in said modified video stream.

12. (original) The medium of claim 11 wherein if a dissolve has occurred at a current frame, coding said current frame as a B frame in said modified video stream.

13. (original) The medium of claim 12 wherein if a fade has occurred, selecting a frame with the lowest complexity in the fade as an I frame in said modified video stream.

14. (original) A method for improving encoder performance, said method determining if a fade has occurred in a video stream, if a fade has occurred, modifying said video stream by selecting a frame with the lowest complexity in the fade as an I frame in said video stream.

15. (currently amended) A system for improving encoder performance, said system having detection means to determine if a fade has occurred in a video stream, if a fade has occurred, utilizing means to select a frame with low ~~the lowest~~ complexity in the fade as an I frame in said video stream.

16. (currently amended) An MPEG video encoder, said encoder comprising:

- a) a statistical analysis module for analyzing statistics from a video stream;
- b) a scene change analysis module connected to said statistical analysis module for determining if a scene change has occurred; and
- c) a modification module to create a modified video stream, wherein a frame with low complexity is selected as an I frame in the modified video stream if the scene change is a fade. ~~if a scene change has occurred.~~

17. (original) The encoder of claim 16 wherein said statistical analysis module calculates the global complexity of a current frame within said video stream.

18. (original) The encoder of claim 17, wherein said modification module codes said current frame as an I frame and codes the frame previous to said current frame as P frame in said modified video stream, if a scene change has occurred and if the scene change is a cut.

19. (original) The encoder of claim 17, wherein said modification module codes said current frame as a B frame in said modified video stream, if a scene change has occurred and if the scene change is a dissolve.

20. (original) The encoder of claim 17, wherein said modification module codes a frame with the lowest complexity in a fade as an I frame in said modified video stream, if a scene change has occurred and if the scene change is a fade.